

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

VENTANA MEDICAL SYSTEMS, INC.,

Plaintiff,

v.

DAKOCYTOMATION CALIFORNIA INC.,

Defendant.

Civil Action No. 04-1522-GMS

**DECLARATION OF ANDRE SHARON, Ph.D. IN SUPPORT OF PLAINTIFF'S
OPPOSITION TO DEFENDANT'S MOTION FOR SUMMARY JUDGMENT**

YOUNG CONAWAY STARGATT & TAYLOR, LLP

Richard H. Morse (No. 531)
The Brandywine Building, 17th Floor
1000 West Street
P.O. Box 391
Wilmington, Delaware 19899
(302) 571-6651
rmorse@ycst.com

Attorneys for Plaintiff
Ventana Medical Systems, Inc.

Of Counsel:

Ron E. Shulman (*pro hac vice*)
Roger J. Chin (*pro hac vice*)
Matthew R. Reed (*pro hac vice*)
WILSON SONSINI GOODRICH & ROSATI
650 Page Mill Road
Palo Alto, CA 94304
(650) 493-9300

March 30, 2006

I, Andre Sharon, Ph.D., declare as follows:

1. I am a Professor of Manufacturing Engineering at Boston University and the Executive Director of the Fraunhofer Center for Manufacturing Innovation. I have been retained by the firm of Wilson Sonsini Goodrich & Rosati as a consultant in connection with the above-captioned matter. I have personal knowledge of the facts set forth below.

2. Attached as Exhibit 1 hereto is a true and correct copy of my first expert report in the above-captioned matter. In formulating the opinions in my report, the facts and data I reference are of the type reasonably relied upon by experts in the field of machine design and automation in forming opinions and inferences upon the subject. I incorporate Exhibit 1 as if fully set forth herein.

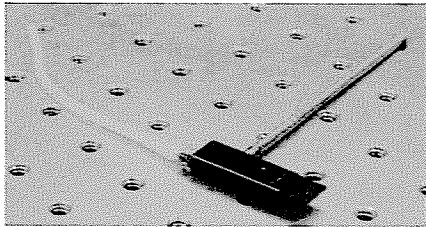
3. I have been asked to consider the assertion in Dako's summary judgment brief that when the nozzle of the Artisan's air mixer is outside of the reagent agitation zone (outside of what Dako refers to as "Zone A") and hence "adjacent" as defined by the Court, that "the air mixer is then no longer directing air at the reagent agitation zone and therefore cannot induce mixing within the reagent agitation zone." Brief, p. 17. I disagree with this assertion. As an initial matter, Dako claims that in the "boundary situations" shown on page 16 ("when the nozzle of the plenum is just barely outside the left and right boundaries" of the reagent agitation zone, *see* Glezer Report, p. 14), "the red arrow represents the air curtain blown through the narrow slit in the plenum." Brief, p. 17. This assertion is inaccurate because the stream of air is not confined to the path shown by the red arrows and it does not suddenly stop in the manner shown in the figures of Dako's brief. While the red arrows are a one-dimensional pictorial representation of the initial direction of the air jet, the air jet diverges as it leaves the nozzle and also interacts with surrounding structures, such as the

wall of the slide clip that separates the reagent agitation zone from the label area of the slide. This results in at least a portion of the air jet being directed at the reagent agitation zone while the nozzle is in the “boundary situations.”

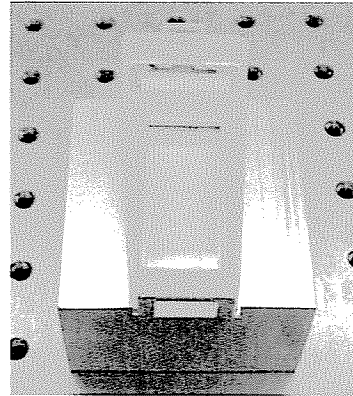
4. Furthermore, due to this divergence and interaction, a portion of the air jet would continue to be directed at the reagent agitation zone, even when the nozzle is laterally moved further away from the reagent agitation zone. Clearly, in these situations, the air mixer would be adjacent (*i.e.*, next to, but not above or beneath, according to the Court’s claim construction) to the reagent agitation zone. In these situations, at least a portion of the air jet is directed at the reagent agitation zone, even when the nozzle is above the wall of the slide clip that separates the reagent agitation zone from the label area of the slide.

5. To test the above assertions from Dako’s brief, I performed an empirical analysis of Dako’s assertion that “if the nozzle of the plenum is outside Zone A, the air mixer is then no longer directing air at the reagent agitation zone and therefore cannot induce mixing within the reagent agitation zone.” Brief, p. 17.

6. I was provided a plenum and slide clip assembly from an Artisan. They are shown below. The plenum and slide clip assembly were consistent with those in the Artisan that I inspected in Fort Collins, Colorado on January 6, 2006.



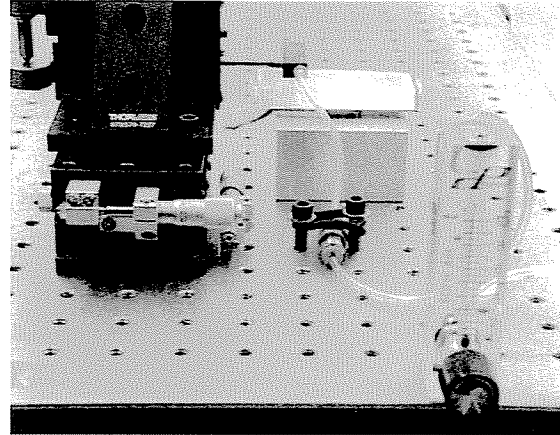
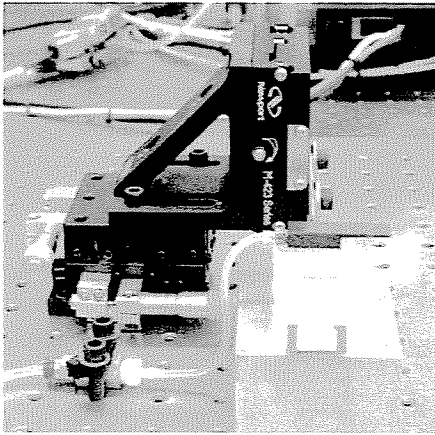
Plenum



Slide Clip Assembly

7. I positioned the plenum and slide clip assembly in a configuration consistent with that shown in the figures on page 5 of the Declaration of Scott Leon. I attached the plenum to a three-axis micro-positioning stage so that the nozzle of the plenum could be precisely positioned. I attached the slide clip assembly to a metal block and adjusted the vertical position of the plenum relative to the slide clip assembly as scaled from the figures in Mr. Leon's declaration, which he described as "fairly and accurately" depicting the positioning of the plenum. I also attached a source of air to the plenum, and set the

flow rate at 9-10 standard cubic feet per hour, consistent with the testimony of Mr. Leon (transcript, p. 66). The complete set-up is shown in the photographs below:



I performed my analysis in a manner consistent with the “Wet Test of Mixer” described in the “Final System Test” protocol for the Artisan (DC 016842), by placing 3 ml of water in the slide assembly and using food coloring to detect mixing.

8. In a first configuration, I adjusted the position of the plenum such that the entirety of the nozzle was located at least 0.1 mm outside of the boundary of the reagent agitation zone. In this configuration, the nozzle was adjacent to the reagent agitation zone. I then added a small amount of blue food coloring to determine whether or not there was mixing in the reagent agitation zone. Mixing in the reagent agitation zone was clearly evident. After a short period of time of mixing, a homogeneous color was noted throughout the solution in the reagent agitation zone. This can be seen in a segment of video on the attached CD-ROM (Exhibit 2), entitled “First Configuration.”


9. In a second configuration, I adjusted the lateral position of the plenum such that nozzle was even further away from the reagent agitation zone, more specifically, where the entirety of the nozzle was located at least 1.0 mm outside of the boundary of the reagent

agitation zone. In this configuration, the nozzle was also adjacent to the reagent agitation zone. I then added a small amount of red food coloring to determine whether or not there was mixing in the reagent agitation zone. Mixing in the reagent agitation zone was again clearly evident. This can be seen in a segment of video on the attached CD-ROM, entitled "Second Configuration."

10. To show that the air jet induced the mixing in the reagent agitation zone, I turned off the air source and performed the same test, by adding a small amount of green food coloring. This time, there was no observable mixing in the reagent agitation zone. This can be seen in a segment of video on the attached CD-ROM, entitled "Control Configuration."

11. Finally, to account for any differences in vertical positioning of the plenum relative to the slide clip assembly that may exist between the Artisan and the figures of Mr. Leon's declaration, I repeated the test described in the second configuration (*i.e.*, 1.0 mm away from the reagent agitation zone) at various heights in 1.0 mm increments, ranging from -2.0 mm to +3.0 mm from the nominal vertical position of the plenum. I observed mixing to be clearly evident at all of the various vertical positions that I tested.

I declare under penalty of perjury that the foregoing is true and correct. Executed on March 25, 2006, at Boston, Massachusetts.


Andre Sharon, Ph.D.

CERTIFICATE OF SERVICE

I, Richard H. Morse, hereby certify that on March 30, 2006, I caused to be electronically filed a true and correct copy of the foregoing document with the Clerk of Court using CM/ECF which will send notification of such filing to the following counsel of record:

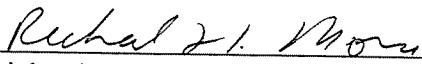
James M. Lennon, Esquire
Francis DiGiovanni, Esquire
Connolly Bove Lodge & Hutz LLP
The Nemours Building
1007 North Orange Street
PO Box 2207
Wilmington, DE 19899-2207

I further certify that on March 30, 2006, I caused a copy of the foregoing document to be served by hand on the above-listed counsel and on the following non-registered participant in the manner indicated:

BY E-MAIL AND FEDERAL EXPRESS

Michael E. Zeliger, Esquire
Kirkpatrick & Lockhart
Nicholson Graham LLP
State Street Financial Center
One Lincoln Street
Boston, MA 02111
mzeliger@klng.com

YOUNG, CONAWAY, STARGATT & TAYLOR, LLP



Richard H. Morse (No. 531))
17th Floor, Brandywine Building
1000 West Street
P.O. Box 391
Wilmington, Delaware 19899-0391
(302) 571-5001
rmorse@ycst.com
Attorney for Plaintiff